N49RF ERROR SUMMARY
Shakedown KMCF- KMCF
31 May 2016

Flight ID: 20160531N1

Sensor or system	Number or Name
Static Pressure Probe	PSM.1
Dynamic Pressure Probe	PQM.1
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZfilterI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.1
Flight Directory	acdata/2016/MET/20160531N1

Local Met Data:	Takeoff - 1824Z	Landing – 1936Z
Aircraft Static Pressure (PSM.1)	1013.8 mb	1012.3 mb
Tower Pressure (corrected)	1013.8 mb	1013.2 mb

Notes:
Takeoff / Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

There were errors made in the calibration of PSM.1 and PSM.2 after the ENRR deployment. The split between #1 and #2 was unusually large (5 mb) on the ground prior to takeoff and after landing. While PSM.1 was very close to station pressure and the PSM.ref was switched from #2 to #1 as a result, it was later determined that at FL410, PSM.1 read several mb too high.

TDM.1 and TDM.2 are not rated for use under -50 deg C, so neither can be considered reliable for dew points colder than -50C. While normally reliable at lower altitudes, both dew point sensors displayed anomalously low values and abnormal oscillations during takeoff climb and descent to landing. Therefore, all flight level humidity data for this mission should be considered suspect.

AltGPS.3 was used as the source for absolute altitude. AltRa.1 displayed an interval of intermittent missing data points (NANs) during climb after takeoff 1839-1840z and anomalous down-spiking periodically as well as missing data points at mission cruise altitude but was not used for any derived meteorological parameters.

There were no other issues noted in the measured parameters used to calculate meteorological and navigational parameters.

Expendable Type	Number deployed	Number good	Number of messages transmitted
GPS dropwindsonde	1	1	1

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